What is claimed is:

1. A method of developing an exposed resist on a processing surface of a substrate in a cup, comprising:

supporting or holding a side opposed to the processing substrate of the substrate and supplying a developing solution to the processing surface of the substrate and the cup, or to the processing surface of the substrate;

exhausting air from a first peripheral region outside the cup during progress of substantial development processing with the side opposed to the processing surface of the substrate held; and

exhausting air from a second peripheral region inside the cup or from the second peripheral region and the first peripheral region in performing a rinsing process with the substrate held in vacuum adsorption.

2. The method according claim 1, further comprising:

varying a concentration of the developing solution filled on the substrate after supplying the developing solution to the processing surface.

3. The method according claim 1, further comprising:

supporting the side opposed to the processing surface of the substrate, and then holding the side opposed to the processing surface of the substrate in vacuum adsorption to support the side opposed to the processing surface of the substrate, in performing processing while supporting the side opposed to the processing surface

of the substrate

4. The method according claim 1, further comprising:

blowing off the developing solution filled on the processing surface once, and supplying a rinsing solution when the developing solution on the processing surface of the substrate does not dry completely, in the rinsing process.

5. The method according to claim 1, further comprising

controlling substantially to set an exhaust amount from the first peripheral region outside the cup, an exhaust amount from the second peripheral region inside the cup in performing the rinsing process with the substrate held in vacuum adsorption, and an exhaust amount from the second peripheral region inside the cup and the first peripheral region in performing the rinsing process with the substrate held in vacuum adsorption at substantially same exhaust amounts.

6. The method according to claim 5, further comprising:

controlling not to vary a supply amount of gas with adjusted temperature and moisture supplied from above the substrate when an exhaust region varies in exhaust from the first peripheral region outside the cup and from the second peripheral region inside the cup.

7. An apparatus that develops an exposed resist on a processing surface of a substrate, comprising:

a first enclosing member disposed around the substrate;

a second enclosing member disposed around the first enclosing member;

a supporting mechanism that is disposed inside the first enclosing member and supports the substrate;

a holding mechanism that is disposed inside the first enclosing member and holds the substrate in vacuum adsorption; and

an exhausting mechanism that exhausts air from a region between the first enclosing member and the second enclosing member when the substrate is supported by the supporting mechanism.

8. The apparatus according to claim 7, wherein the first enclosing member is movable upwardly and downwardly.

9. The apparatus according to claim 8, further comprising:

a developing solution supplying mechanism that supplies a developing solution to the substrate and the first enclosing member while the supporting member supports a back side of the substrate or the holding member supports the back side.

10. The apparatus according to claim 7, further comprising:

a solution penetration preventing mechanism that is provided in the supporting mechanism and prevents the developing solution from entering a center portion of a surface opposed to the processing surface of the substrate.

11. The apparatus according to claim 10, wherein the solution penetration preventing mechanism is provided with a tilting portion such that a position of a height thereof is lower toward a center portion of the substrate.

12. The apparatus according to claim 7, wherein the supporting mechanism supports a plurality of portions on the side opposed to the processing surface of the substrate in point-contact or in line-contact.

13. The apparatus according to claim 7, further comprising:

a control mechanism that stops exhaust or decrease an exhaust amount from inside the first enclosing member during progress of development processing with the substrate supported by the supporting mechanism.

14. The apparatus according to claim 7, further comprising:

an exhaust mechanism that exhausts air from a region between the second enclosing member and the first enclosing member and from a region inside the first enclosing member at the same time or selectively.

15. A method of supplying a processing solution to a substrate to process, comprising:

exhausting air from a first peripheral region around the substrate; and

exhausting air from a second peripheral region between the first peripheral region and the substrate and from the first peripheral region, or from the second

peripheral region.

16. The method according to claim 15, further comprising:

setting an exhaust amount from the first peripheral region at an exhaust amount substantially larger than an exhaust amount from the second peripheral region at least during progress of supplying the processing solution to the substrate or during progress of substantial processing using the processing solution.

17. The method according to claim 15, further comprising:

setting a total amount of an exhaust amount from the first peripheral region and an exhaust amount from the second peripheral region at a substantially constant exhaust amount even when an exhaust region varies.

18. The method according to claim 15, further comprising:

setting an exhaust amount from the first peripheral region at an exhaust amount substantially larger than an exhaust amount from the second peripheral region in carrying the substrate in or out of a processing chamber where the substrate is processed.

19. The method according to claim 18, further comprising:

setting pressure inside the processing chamber to be substantially higher than pressure outside the processing chamber while a supply of gas with adjusted

temperature and moisture from above the substrate is not varied.

20. The method according claim 15, further comprising:

setting a time taken to exhaust air from the first peripheral area around the substrate to be substantially longer than a time taken to exhaust air from the second peripheral region among a time, taken to process a single sheet of the substrate, elapsing between carrying the substrate in and out of a processing chamber.